

First Generalized Embodiment

FIG. 1A

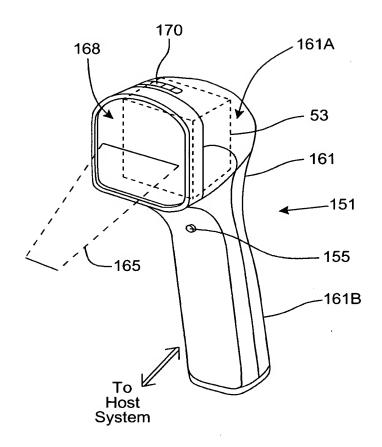


FIG. 1B

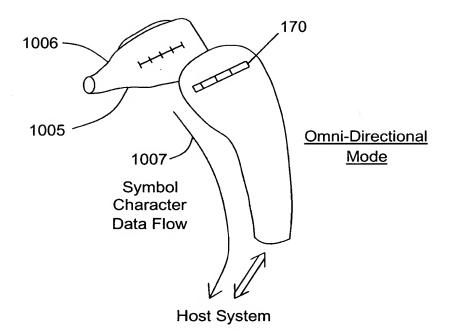


FIG. 2A

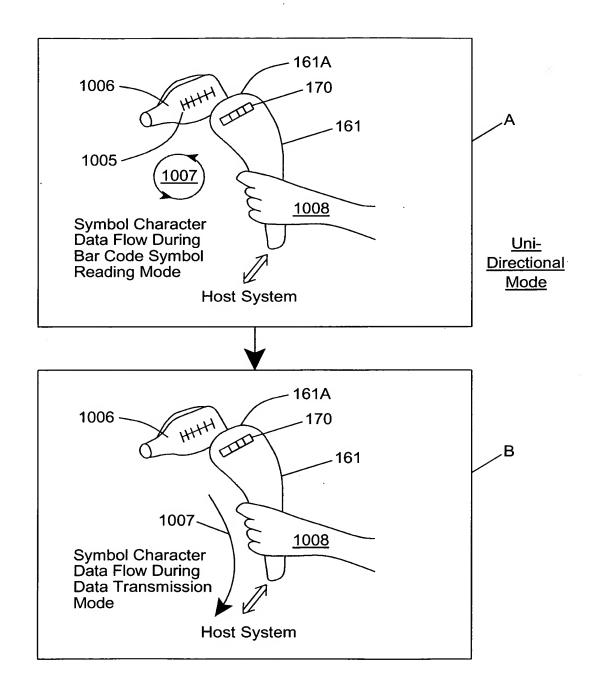
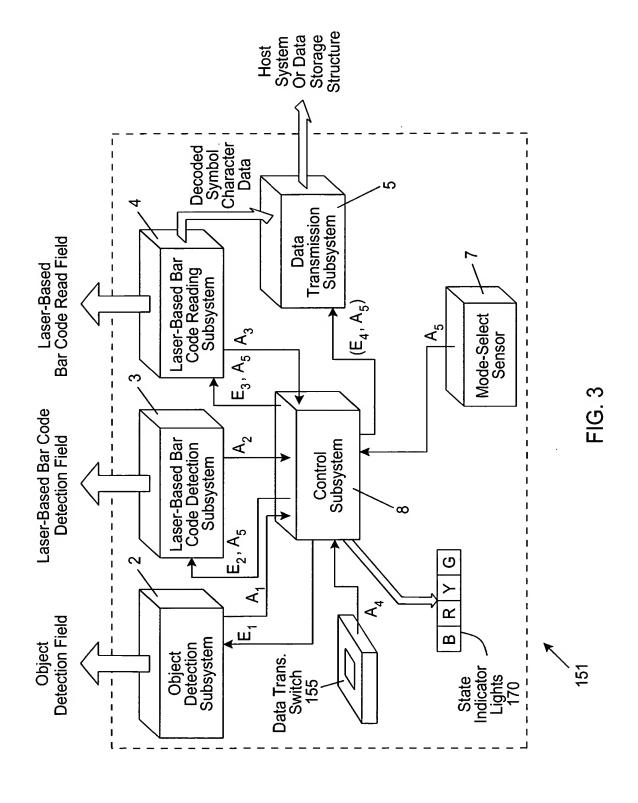
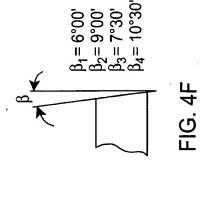


FIG. 2B





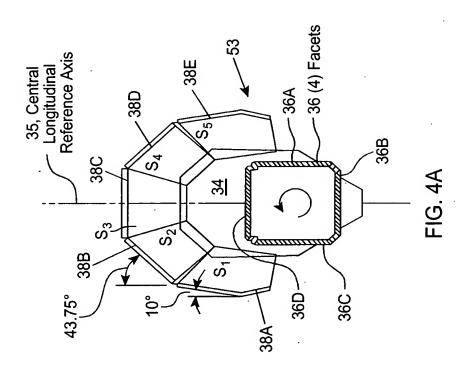


FIG. 4E

Bend 0

Twist  $\alpha$ 

46.0°

10°

S<sub>1-5</sub>

42.5°

43.75°

S<sub>2-4</sub>

40.5°

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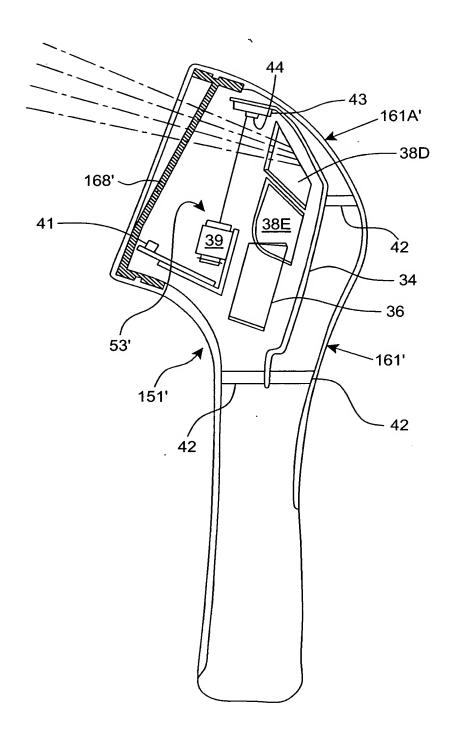


FIG. 4B

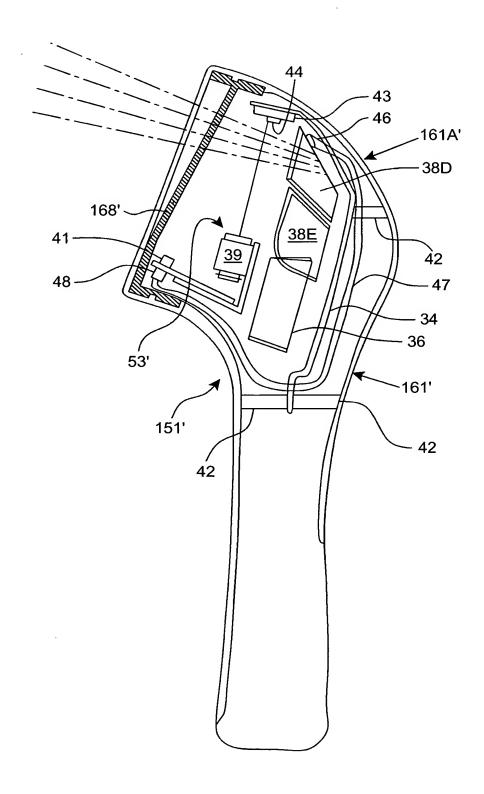


FIG. 4C

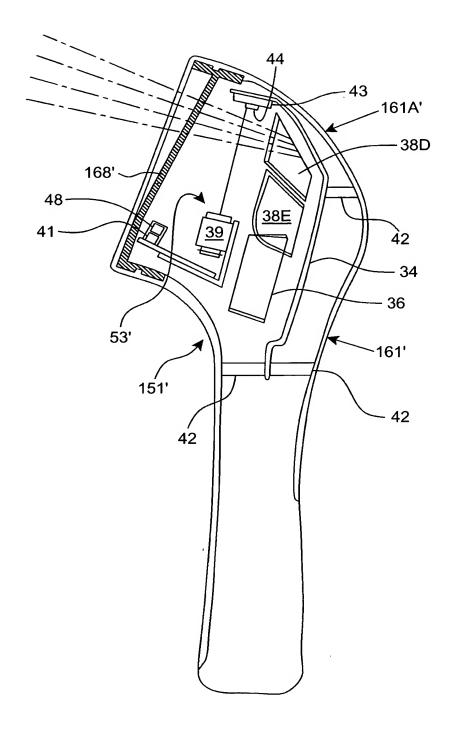
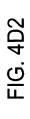
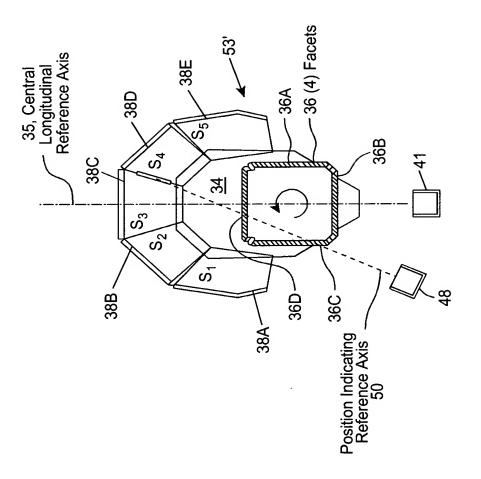


FIG. 4D1





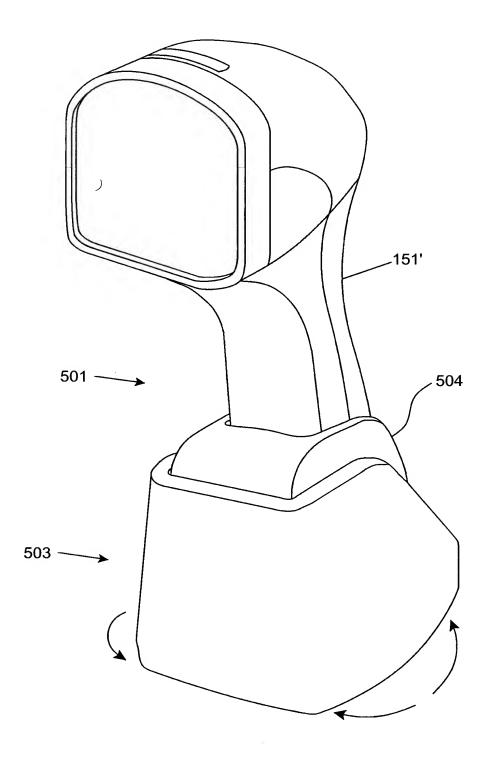


FIG. 5A

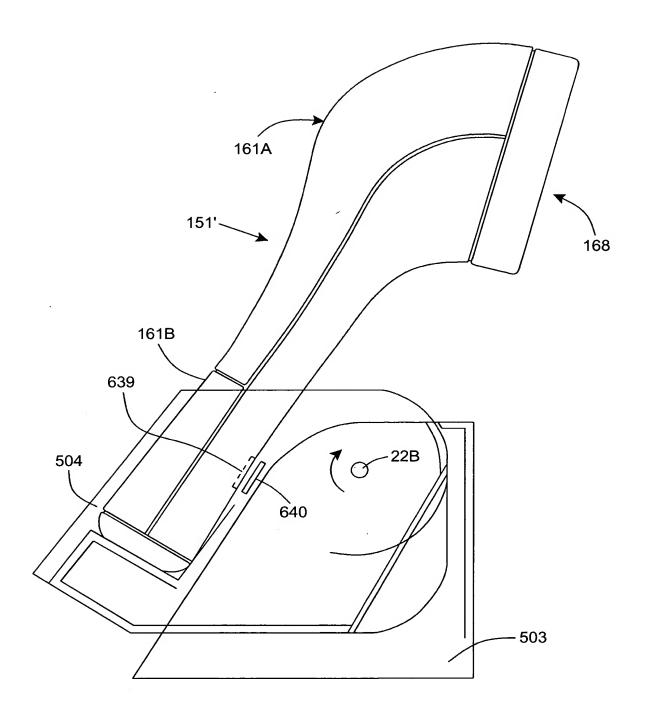
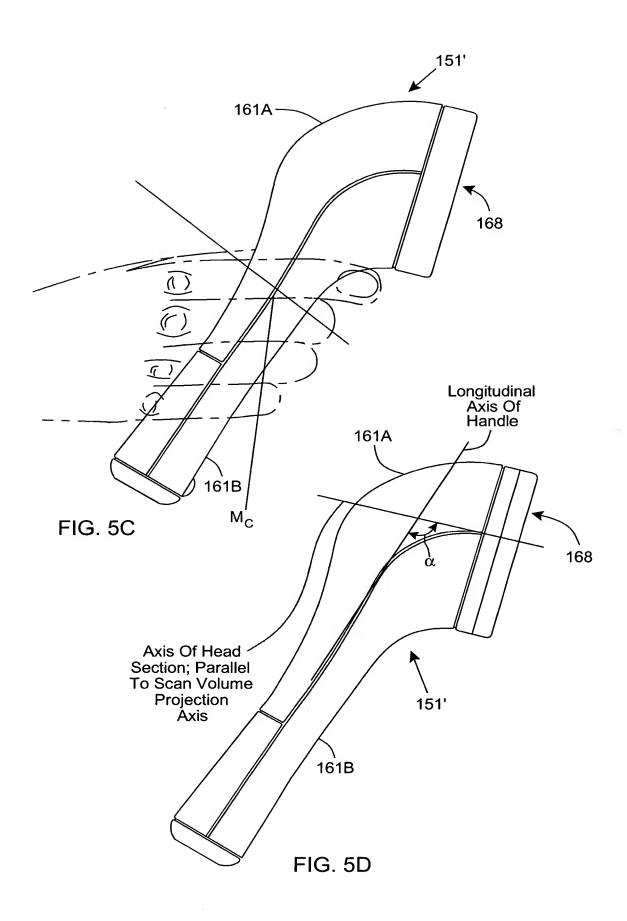


FIG. 5B



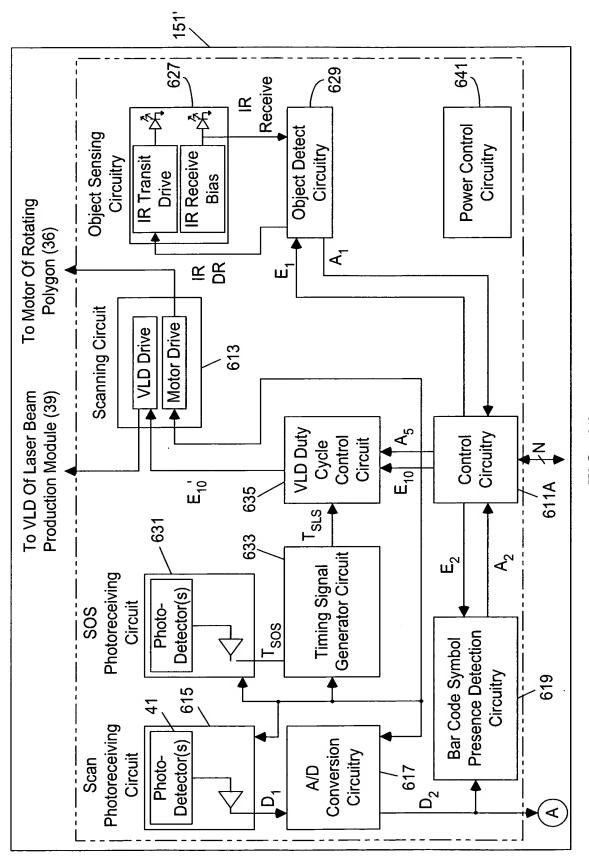
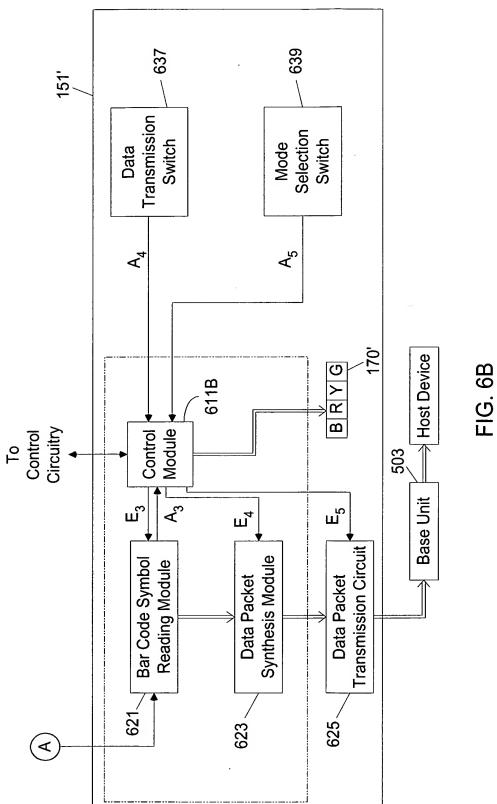


FIG. 6A



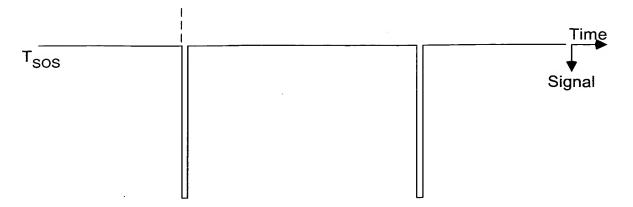


FIG. 7A

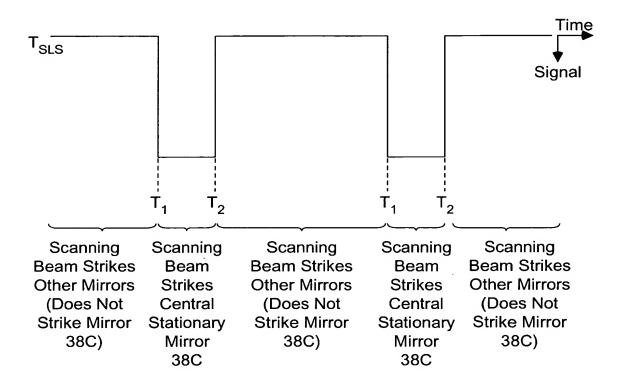


FIG. 7B

$$E_{10}' = (\overline{T_{SLS}} \times E_{10} \times A_5) + (E_{10} \times \overline{A_5})$$
FIG. 7C

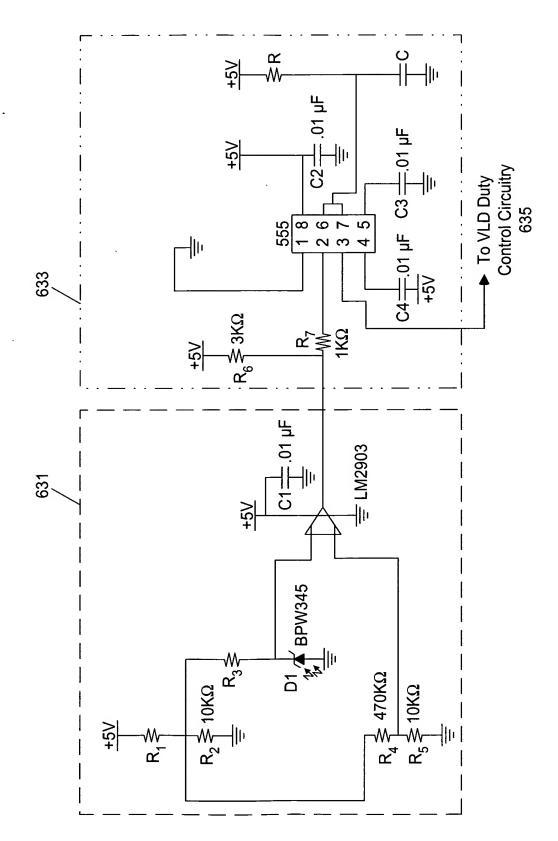


FIG. 7D

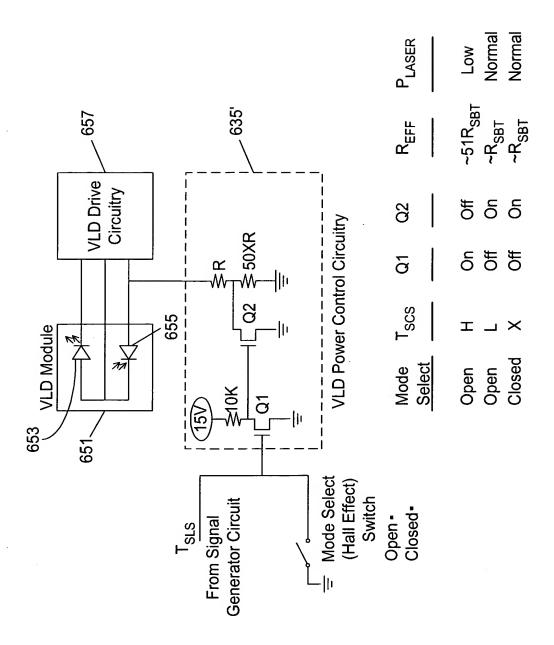


FIG. 7E

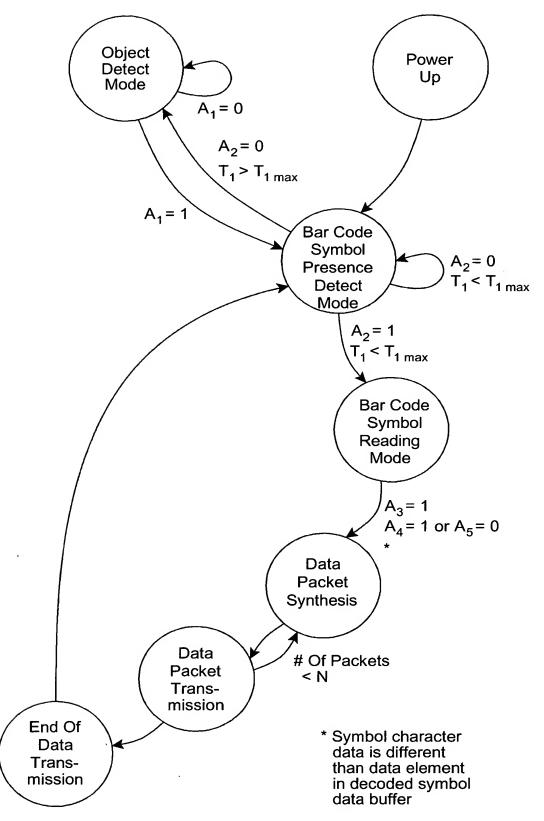
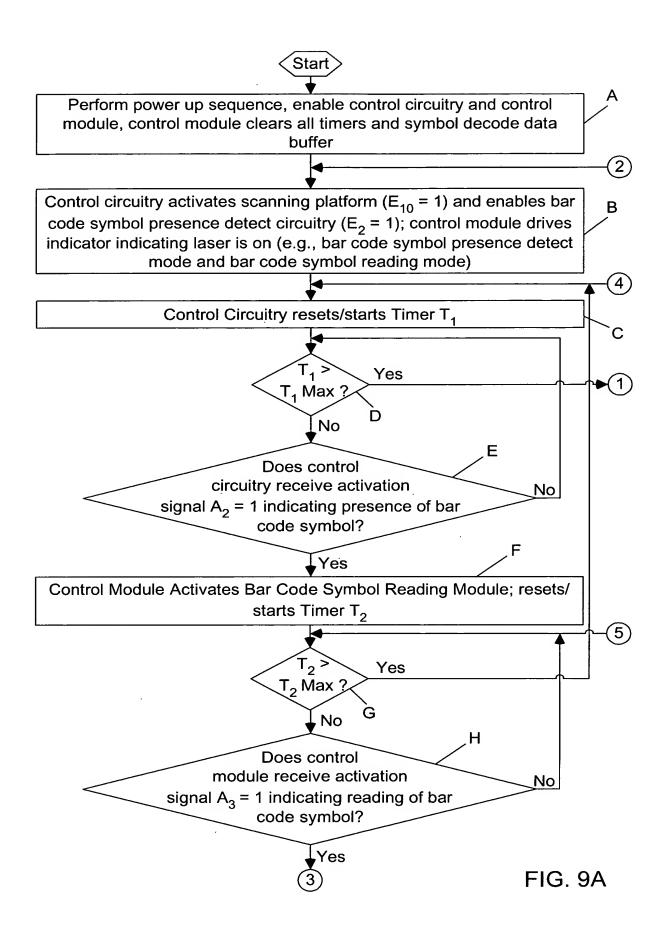
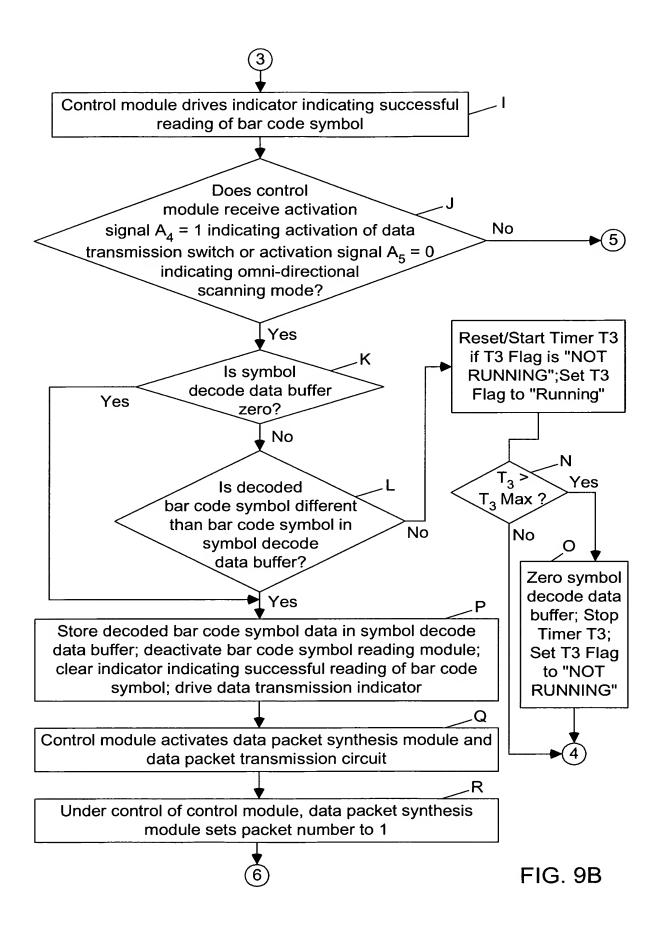


FIG. 8





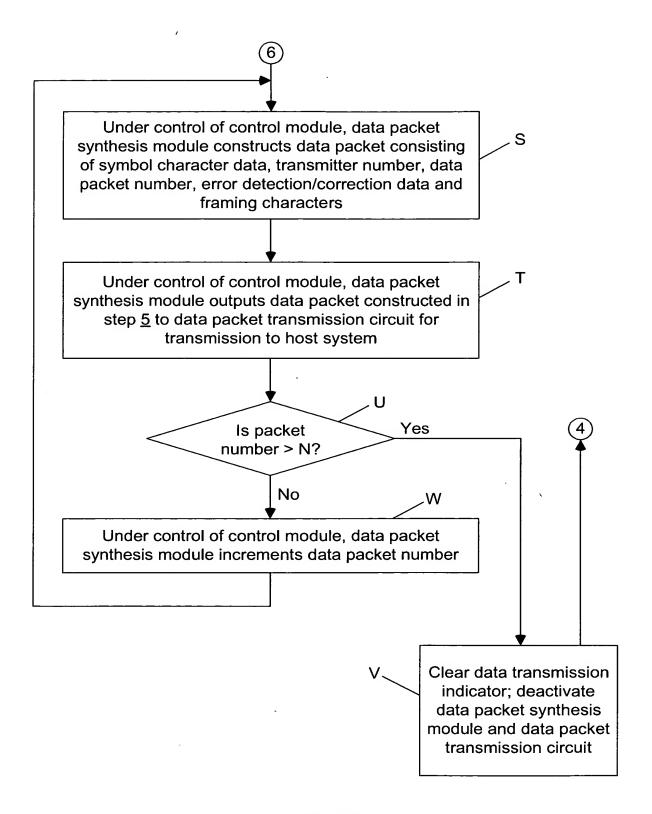


FIG. 9C

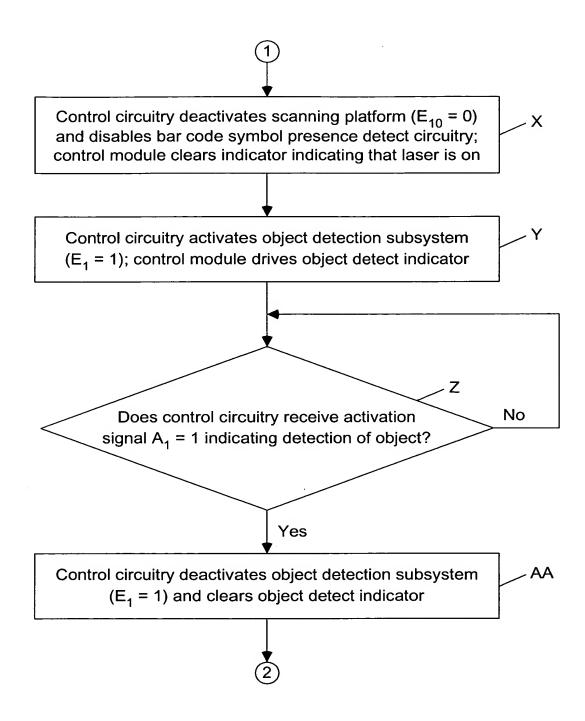
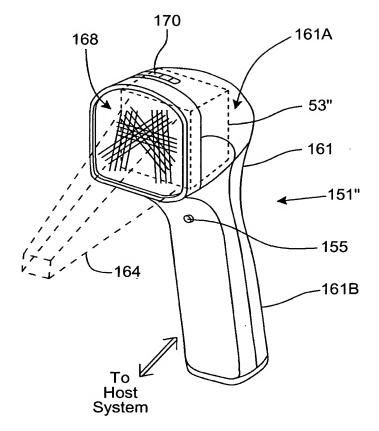


FIG. 9D



Second Generalized Embodiment

FIG. 10A

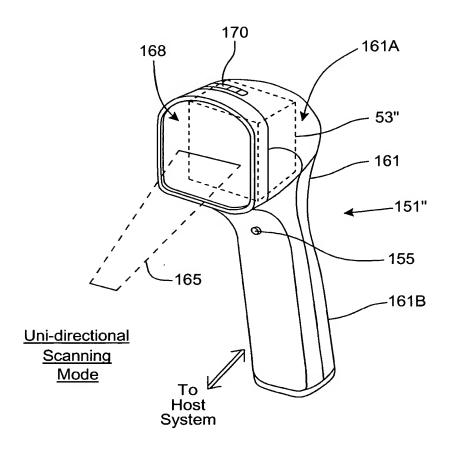


FIG. 10B

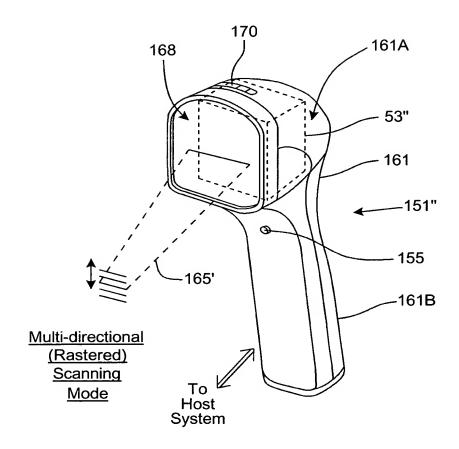


FIG. 10C

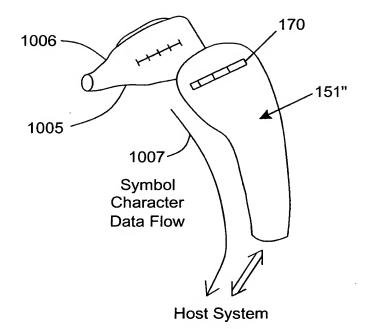


FIG. 11A

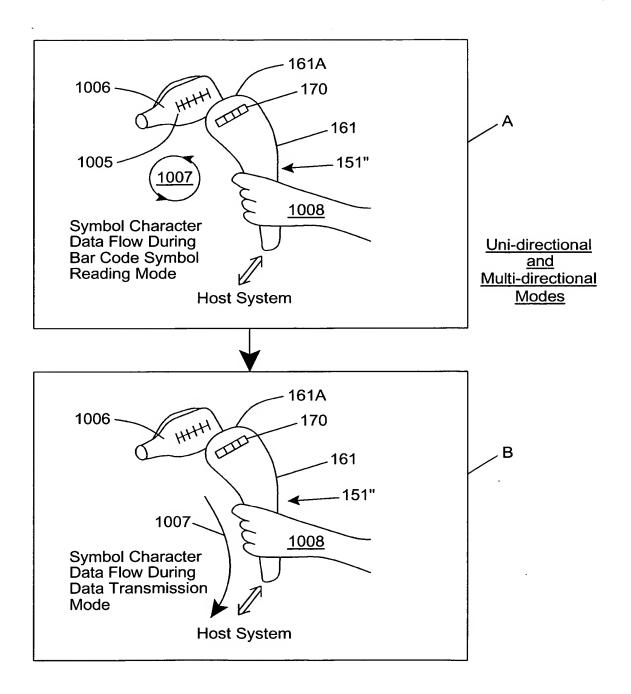
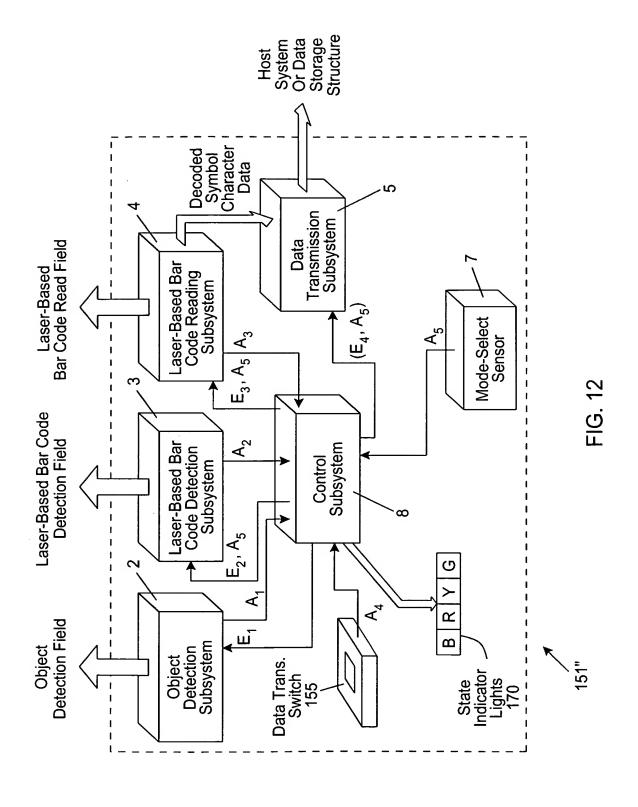


FIG. 11B



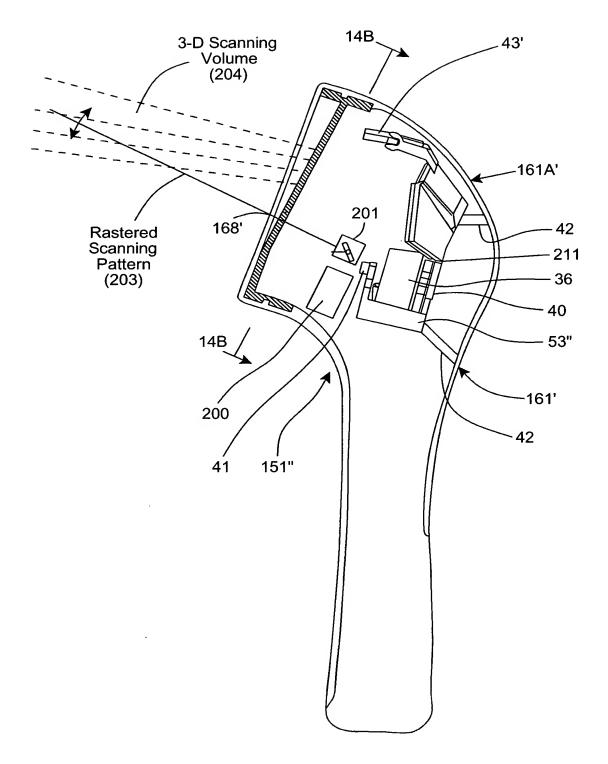


FIG. 13

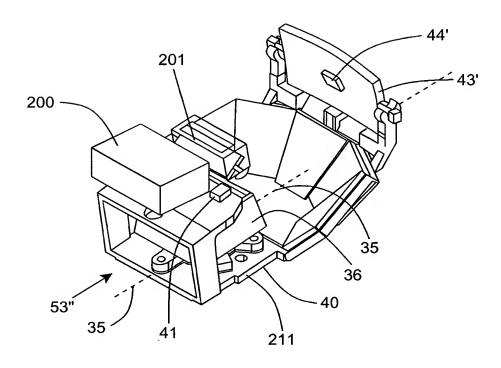


FIG. 14A

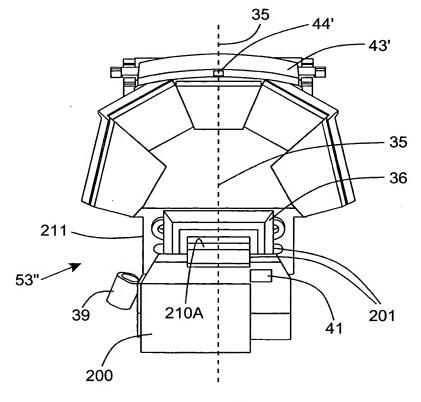


FIG. 14B

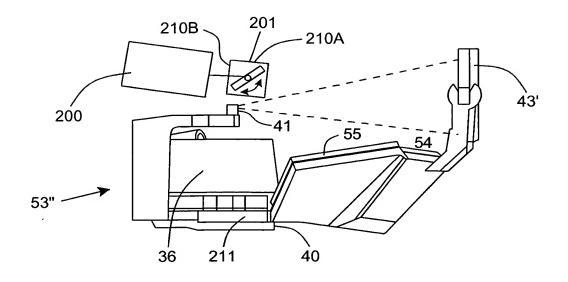


FIG. 14C

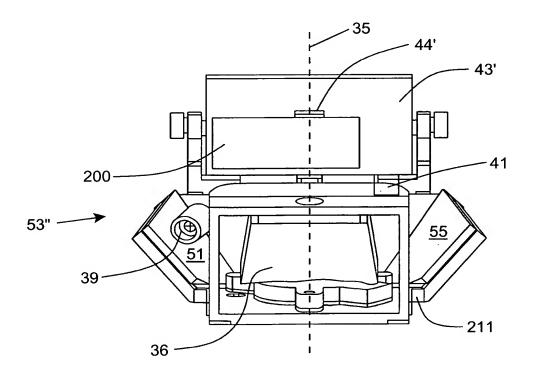


FIG. 14D

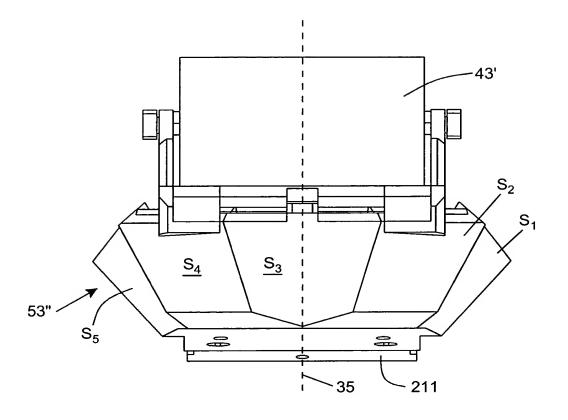


FIG. 14E

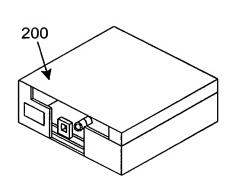


FIG. 14F

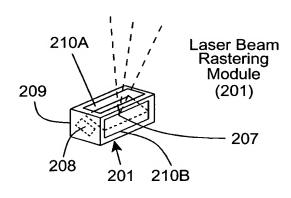


FIG. 14G

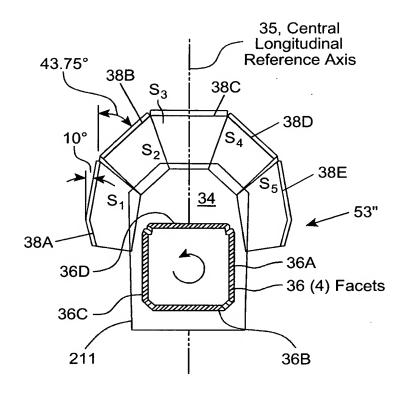


FIG. 15A

## Optics Bench Array Mirror Specifications

Mirror	Relief Angle	Twist Angle
	Degrees	
1	45.91	69.32
2	47.85	34.15
3	48.4	0
4	47.85	34.15
5	45.91	69.32

Mirror	Length	Width
	Millimeters	
1	19.872	17.303
2	16.341	13.746
3	16.67	15.788
4	16.341	13.746
5	19.872	17.303

FIG. 15B

## **Angles Specification:**

## Definitions:

Relief Angle- The angle between the plane including all the bottom front edges of the array mirrors and the front surface of the mirror being measured.

Twist Angle- The angle of rotation about the z-axis with 0 degrees twist being defined as perpendicular to the incident beam (field 3).

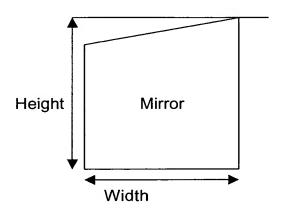


FIG. 15C

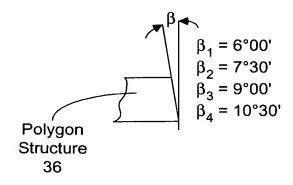


FIG. 15D

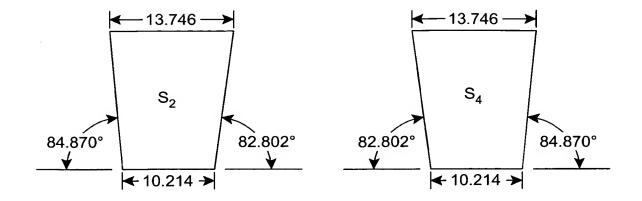


FIG. 15F

FIG. 15H

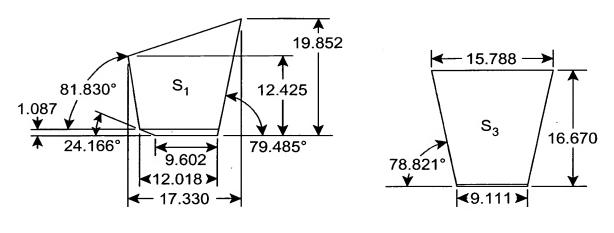


FIG. 15E

FIG. 15G

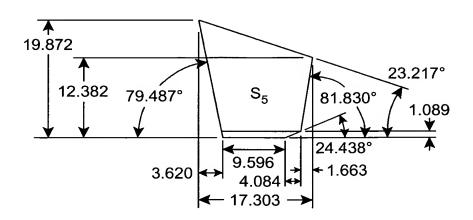


FIG. 151

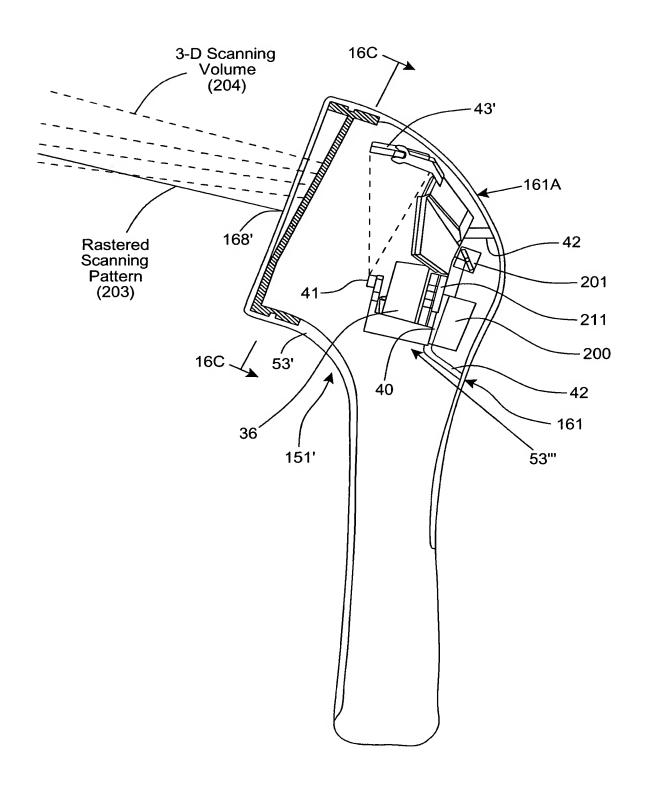


FIG. 16A

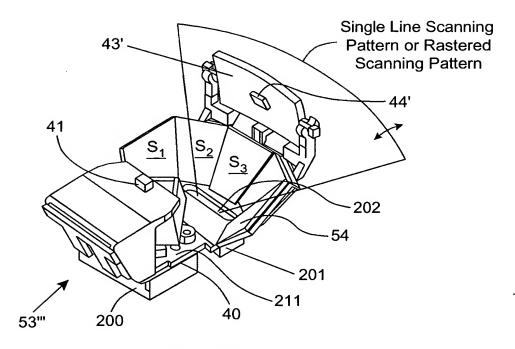


FIG. 16B

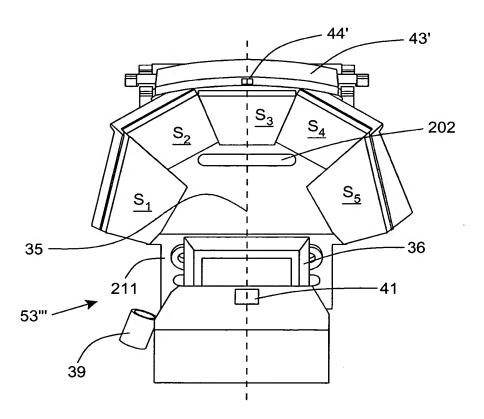


FIG. 16C

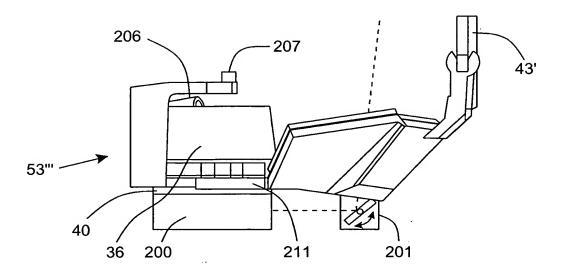


FIG. 16D

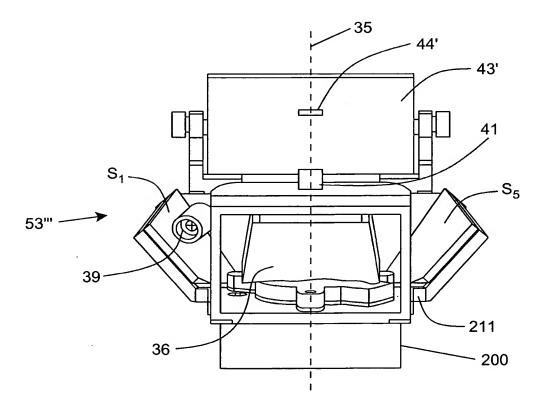


FIG. 16E

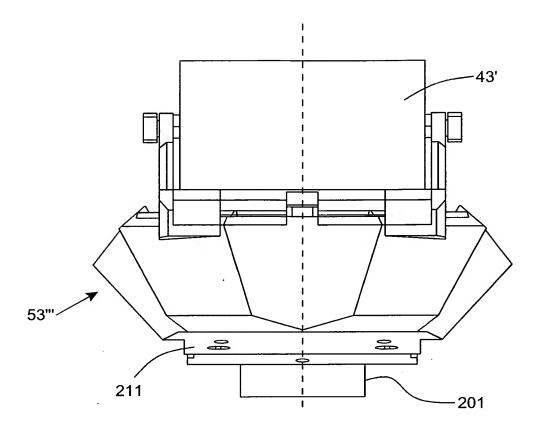


FIG. 16F

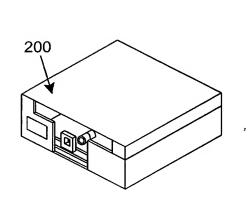


FIG. 16G

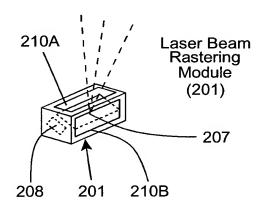


FIG. 16H

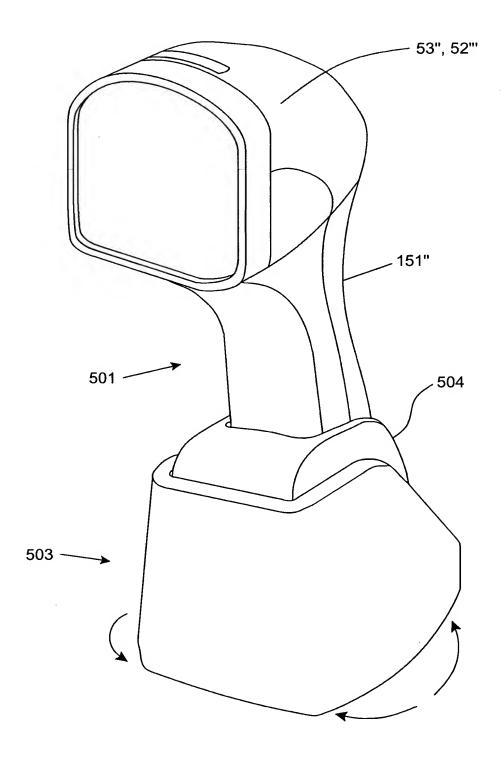
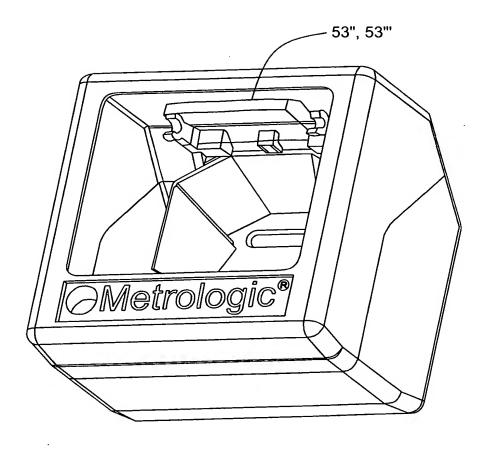


FIG. 17



Device Has Omni-directional, Multi-directional, and Uni-directional Scanning Modes of Operation

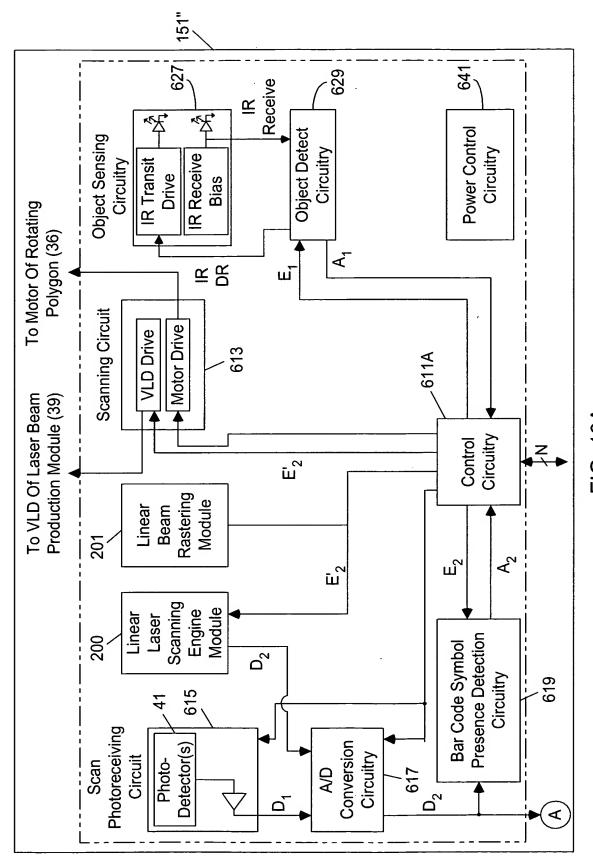


FIG. 19A

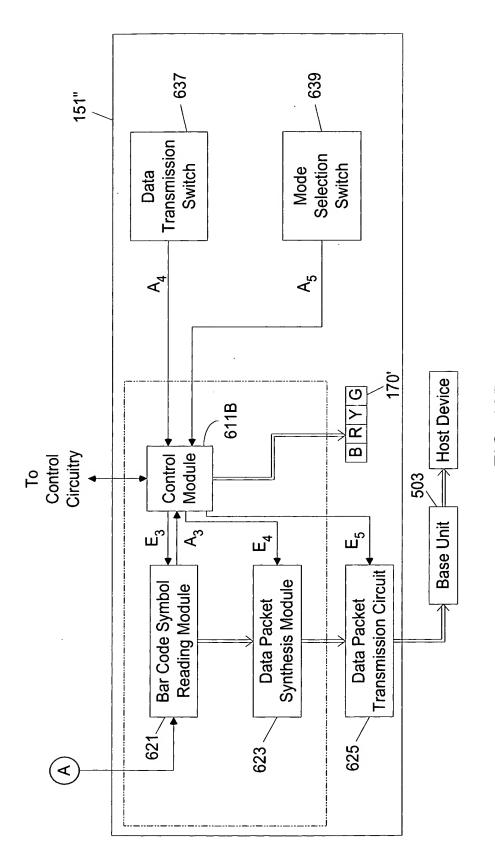


FIG. 19B

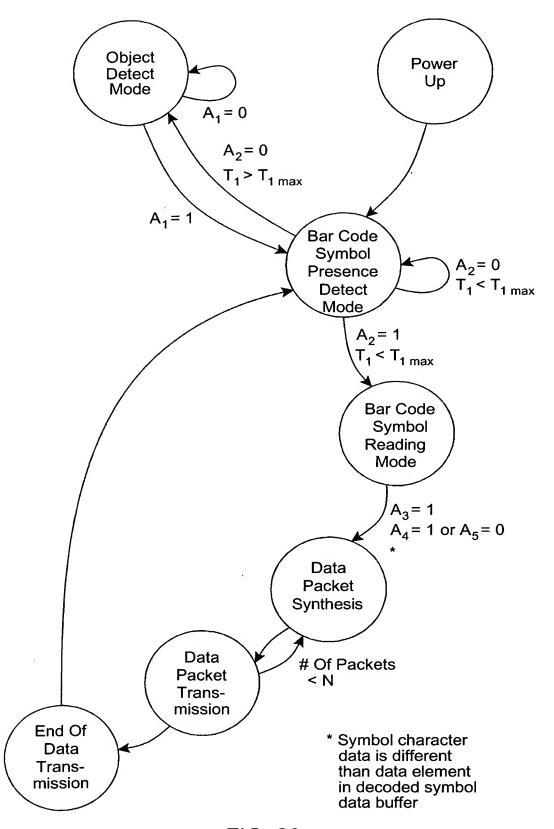
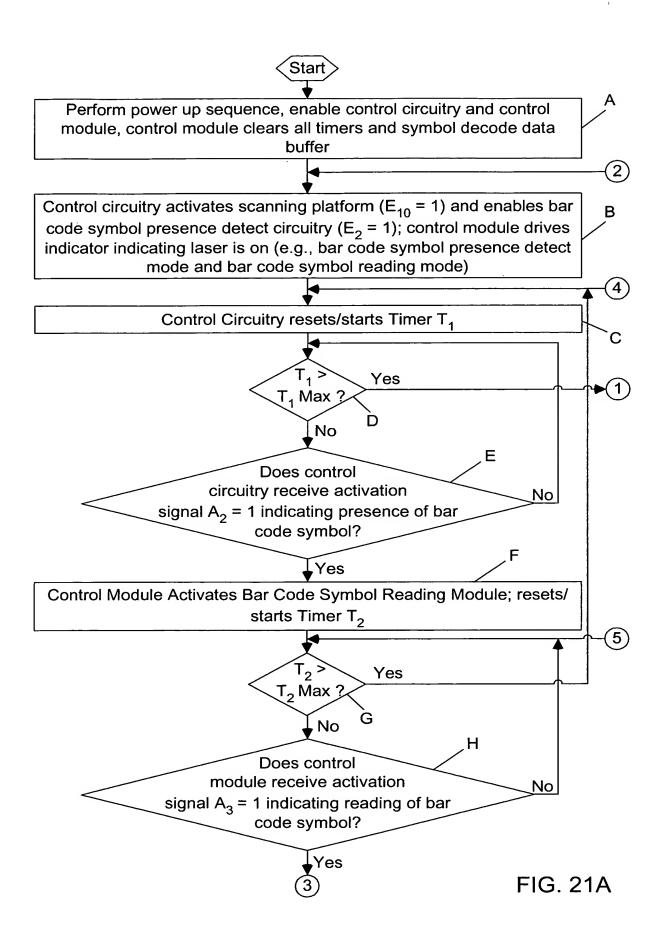
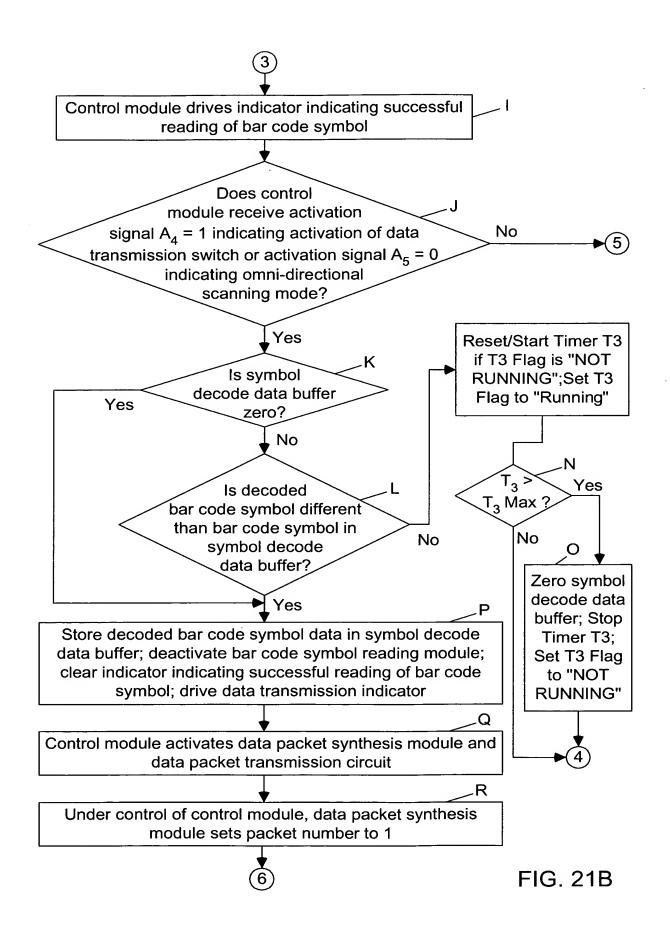


FIG. 20





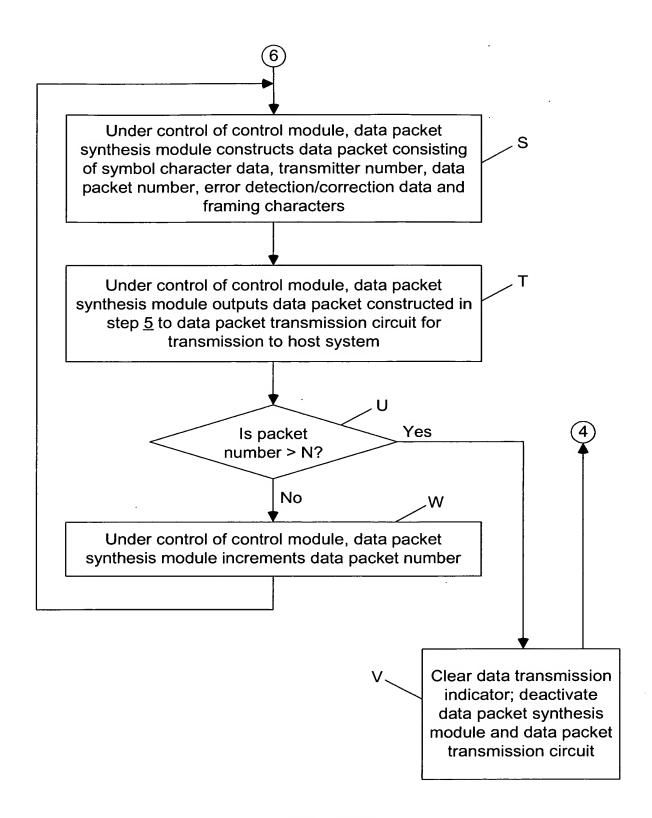


FIG. 21C

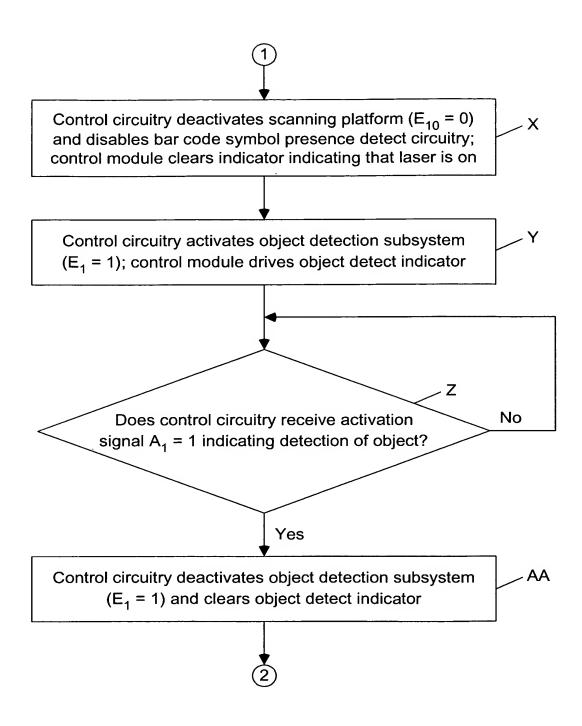


FIG. 21D